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ABSTRACT

Extending the work of Crandall (1969), this study tested the hypotheses of sex differences in interpretation of past academic performance and expectations of future achievement. Subjects were 225 freshman women and 194 freshman men (93 percent of the freshmen class) at a highly selective midwestern liberal arts college: they did not differ in past academic performance (high school rank), later college performance (grade point average), or ability (SAT-Verbal). The students indicated whether their high school grades accurately represented, underrepresented, or overrepresented their abilities. Results confirmed predictions and supported Crandall's (1969) findings that women students underestimate future performance on intellective and academic tasks while men tend to overestimate it. Women tended to report grades as overrepresenting their ability, men as underrepresenting their ability. Men were also more likely than women to expect at least a "B" average in college and honors at graduation. For both sexes, students who saw their high school grades as underrepresenting their abilities had significantly lower college grades than those who saw grades as overrepresenting abilities. (Author)

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SEX DIFFERENCES IN SELF-EVALUATION OF ACADEMIC ACHIEVEMENT AND ABILITY

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Although it has recently been overshadowed by work on motivation (Horner, 1970), conceptualization of one's abilities with regard to demands of tasks undertaken should also be an important determinant of sex differences in achievement dispositions. Crandall (1969) found that women express lower expectancies for performance on intellective and academic tasks than men. The difference persists over a wide range of tasks, ages, and feedback. By the end of college, the women in Crandall's sample tended to expect lower grades than past experience warranted. It thus seems that expectancy may reflect an enduring concept of one's abilities with regard to intellectual tasks which filters and affects the meaning of feedback such as grades. If this be correct, men and women should express different interpretations of past work and of grades already received. Despite the absence of performance differences, men should be more likely to perceive prior grades as having underrated their abilities, and women more likely to perceive their prior grades as having overrated their abilities. Men are also predicted to express higher expectations of future academic performance than women.

METHOD

The entire entering class of a highly selective midwestern liberal arts college was given a version of the 1973 Student Information Form (Astin, King, Light, & Richardson, 1973) which contained the following question:

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"How do you think your high school grades relate to your abilities?

a. Overrate my abilities

b. Accurately reflect my abilities

c. Underrate my abilities

The sample consisted of the 194 men and 225 women who answered this question (Blacks and Chicanos were excluded from analyses because they formed different distributions on some key aptitude and achievement variables used in the study). The sample constituted 93% of the total entering class. The sexes were virtually identical on Scholastic Aptitude Test-Verbal (SAT-V), our main measure of ability: male means, 616, female, 617. A Mann-Whitney U Test (Siegel, 1956) of association between sex and high school ranks (HSR) revealed no significant differences between the sexes ($Z = .0866$; n.s., corrected for ties).

On the basis of their responses to the ability-grades question, subjects were assigned to one of three groups: "Overs", who felt their high school grades overrated their abilities; "Accurates", who thought their abilities and grades matched; and "Unders", who thought their grades underrated their abilities.

The following analyses were performed: 1) Comparison of the sexes on membership in perceived grade ability groups (by Chi Square); 2) comparison of sexes on cumulative grade point average (GPA), as of the end of the freshman year (by t); and 3) comparison of the sexes on two questions relating to expectation of college performance.

RESULTS

Overall Sex Differences

As predicted, a significant association between sex and perceived fit of grade and abilities was found, Chi Square (2) = 15.091, $p < .001$. Men were more likely to designate themselves as Unders, women, as Overs (see Table 1), despite the absence of significant differences between the sexes on SAT-V and

HSR. There was no difference between the male and female means on college GPA, t (417) = .803, n.s.

Two items on the Student Information Form dealt with achievement expectations directly related to grades. Men were significantly more likely than women to expect to obtain at least a "B average", Chi Square (1) = 4.739, $p < .05$; and to "graduate with honors", Chi Square (1) = 5.141, $p < .05$.

Grade-ability groups

Since we were curious about the relationship of our grade-ability question to actual college performance, we compared the grade-ability groups on college GPA, for each sex(separately). For both sexes, Overs had higher college GPA's than Accurates than Unders, with differences between Overs and Unders statistically significant (see Table 2). For men, the difference between the means of Overs versus Unders = .239, t (110) = 2.765, $p < .01$; for women the corresponding difference was .268, t (97) = 3.082, $p < .01$.

DISCUSSION

The above results support the hypothesis that men and women students differ in their evaluations of past academic performance. Freshmen men more frequently expressed the opinion that their high school grades underrated their abilities than did their women colleagues, despite the absence of differences on various performance measures. Expectancy of future academic success was associated with sex (with males more likely to expect at least a "B average" and to be graduated with honors than female students). The finding that Unders of both sexes also achieved lower freshmen GPA's than the Overs, together with the consistent sex differences, suggest a distortion in the interpretation of feedback which, in turn, distorts expectancy. Crandall (1969) similarly reports that the tendencies to estimate future grades lower or higher than warranted by past grades were associated not only with gender, but also with performance itself: In her sample

of eighth graders, children of both sexes who were doing the best in school--in terms of having high standing within a class which itself was formed on the basis of high ability -- expressed relatively "conservative, cautious" estimates, while those doing the worst expressed inflated ones.

It is also possible to view the results of this study in the context of work on underachievement. Indeed, one's evaluation of the extent to which grades reflect abilities can be viewed as a measure of self-perceived under-, over- and accurate achievement with respect to abilities. With regard to the sex difference, our results suggest there are more men than women who perceive themselves as underachieving in this highly selected group; and these "Unders" do less well in college.

However, there are also several studies (cited by Crandall, 1969) which demonstrate a positive relation between achievement or achievement related behaviors and expectancy. It is unclear, then, whether the sex difference reflects males possessing(and females lacking) a healthy confidence in their abilities, which would facilitate tackling and solving intellectual problems in the face of some negative feedback or the defensive overstatement characteristic of low or underachievers. Authors such as Heath, 1964; Lacher, 1971; Stern, Stein, & Bloom, 1956 describe college underachievers as tending to overestimate their own abilities and to hold unrealistic expectations of future achievements.

Reasons for these consistent sex differences in assimilation of feedback and formation of expectancies about academic performance have been suggested, but not fully explored. Crandall (1969) suggests that, for whatever reason, boys may react more to positive aspects of feedback, and girls to negative. Consistent with this contention, is the finding that academic achievement in fourth-graders is associated with accepting blame for failure by girls and accepting credit for success in boys (Messer, 1972). Reasoning in terms of differential reinforcement

history, Crandall (1969) also suggests the possibilities that boys may get more praise and girls more blame, or that standards set for boys are not as high as those set for girls.

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Table 1

Sex differences in self-evaluation of academic achievement and ability.

Ratings	Sex Male n	Sex Female n
Overs	32	46
Accurates	82	126
Unders	80	53*
TOTAL	194	225

*Chi-square (2) = 15.091, p .002, 2-tailed

Table 2

Freshman GPA's of Overs, Accurates, and Unders.

Group	Sex Male M	SD	Sex Female M	SD
Overs (32)	2.130	.433	(46) 2.121	.419
Accurates (82)	2.054	.395	(126) 2.072	.369
Unders (80)	1.891*	.420	(53) 1.853**	.377

a) Grade scale: 1="C", 2="B", 3="A", Thus, a 2.000 would equal a perfect "B" average.

b) Numbers in parentheses = numbers of subjects in each subgroup.

* t for mean difference between male Overs and Unders (110) = 2.765 $p < .01$, 2-tailed.

** t for mean difference between female Overs and Unders (97) = 3.082, $p < .01$, 2-tailed.